

Daily GLOWBUGS

Digest: V1 #43

via AB4EL Web Digests @ SunSITE

Purpose: building and operating vacuum tube-based QRP rigs

[AB4EL Ham Radio Homepage @ SunSITE](#)

%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%%

Subject: glowbugs V1 #43

glowbugs

Tuesday, May 27 1997

Volume 01 : Number 043

Date: Sun, 25 May 1997 18:35:04 -0700 (PDT)

From: tomrice@netcom.com (Tom R. Rice)

Subject: Inca Transformer Info?

I've come across a strange transformer, which, if it is what I suspect, i.e., a plate-to-line dude, could be very useful for my upcoming AM rig.

It's labelled:

Inca Transformer No. GH 15
Phelps Dodge Copper Products Corporation
Inca Manufacturing Division, Los Angeles, Calif.

An ohmmeter check reveals a balanced winding pair on one side and a pair of tapped, balanced windings on the "low" side.

Apologies for the multiple postings; with four radio lists to deal with, I'm trying to cover all the bases ;-)

If someone can come up with the actual characteristics, 'twould be very nice indeed.

Thanks in advance, WB6BYH

"Remember, you must always grind forward, never backwards."

-- Sally to Buster in "The Cameraman"

--

"Start off every day with a smile and get it over with." --W.C.Fields

Tom R. Rice

tomrice@netcom.com

CIS: 71160,1122

Date: Mon, 26 May 1997 00:42:55 -0500 (CDT)
From: mjsilva@ix.netcom.com (michael silva)
Subject: Re: ? on regens

Lee wrote:

<report of experiments removed>

>Why then do most all regen schematics call
>for a audio choke load on det. As far as I can see
>they causwe hum without any other advantages
>except when you have a low amount of b+ to work
>with. Am running 125v on plate and it osc at about
>15v on screen.

Thanks for the report, Lee. I think you've got the answer in your comments above -- I believe it is a throwback to the days of low plate voltages. The only other advantage I can see to a plate choke is that it can be turned into a resonant audio load to provide some peaking.

BTW, the rule I've seen is that screen grid tubes make the most sensitive detectors at around 30 volts on the screen. Just for grins you might want to try reducing your feedback coupling to oscillate at 30 volts on the screen and see if it makes much difference.

73,
Mike, KK6GM

Date: Mon, 26 May 1997 01:36:28 -0500 (CDT)
From: Chris Broadbent <cfb@bga.com>
Subject: Bad GRC-109 Experience plus RX vs RX/TX Antenna Performance.

I had an unpleasant experience with my newly acquired GRC-109.

Yesterday, I bought a 6 volt lead-acid battery for remote operation. I have visions of using the 109 when camping. Unfortunately, I could find either 6AH batteries, or ones the size of a normal 12V car battery with 560 CA rating (they didn't state the AH rating)! At \$30 for the big battery, and \$10 for the small one, I chose a big one, given the 13A draw of the 109 on transmit.

Anyways, when trying out the power supply with my new battery, I found that the vibrator didn't operate. Upon removing it from the PSU and determining that 6V was reaching its socket just fine, I tried to power the vibrator directly, first through high wattage resistors. I kept on dropping the resistance, with no sign of life. Eventually, having no further choice, I simply connected straight to the battery. Lo and Behold! It came to life. I guess the arcing on the contacts may have cleaned them. Drastic, but it worked!

Delighted, I re-inserted the now working vibrator (ugh, perhaps there is a

better choice of words, but y'all know what I mean). It worked just fine. One thing of note was the somewhat higher (and correct) TX HT voltage. No problem, thought I.

In my first post on the condition of my 109, I mentioned possible battery acid damage to the plug surface and one knob. I guess the acid had made its way into the TX power plug. Although able to withstand the lower voltage when run from the mains (due probably to the 130V setting I use), the plug did not do so well with the higher potential. There was a bright flash, a loud bang and a spurt of flame from it, impinging on the PSU TX socket. The 15A fuse blew, probably saving the PSU.

Upon examination of the TX plug, I found a crack in it, going from the HT pin through the inert pin to the ground pin. It also scorched the surface of the PSU TX socket (a small area of surface damage only, I believe).

Amazingly, after cleaning off the carbon with alcohol, the outfit still works, albeit only from the mains on a 150V setting. When using the 130V setting, I hear a little arcing in the plug. I can't clean in the crack itself.

The PSU still works fine from the battery, but I won't be powering the TX that way until I can come up with a fix.

Does anyone know where I might find a replacement plug and cord for the 109 TX? Failing that, does anyone know where I might find a plug matching the TX plug, even if not original equipment? Failing that, has anyone any ideas how I might solve my problem? Perhaps I could purchase someone's derelict 109 TX with a good power cord.

BTW, WRT the receiver sensitivity with the TX in and out of the antenna circuit, I too notice a slight increase in signal strength with the TX out of circuit. However, the operative word here is "slight".

- --

Cheers,

Chris F. Broadbent (KC5VQL)

Date: Mon, 26 May 1997 00:42:04 -0700 (PDT)

From: Ken Gordon <keng@uidaho.edu>

Subject: Re: Bad GRC-109 Experience plus RX vs RX/TX Antenna Performance.

> BTW, WRT the receiver sensitivity with the TX in and out of the antenna
> circuit, I too notice a slight increase in signal strength with the TX out
> of circuit. However, the operative word here is "slight".

What frequencies did you check this on ?

According to the manual, for best receiver sensitivity on the LOWER frequencies, one should use a separate antenna for the receiver.

Mine exhibited considerable difference in sensitivity on ALL frequencies. Another receiver I am examining for a friend exhibits the same symptoms. I am beginning to wonder if there is a problem with the RF input coils.

Ken W7EKB

Date: Mon, 26 May 1997 09:53:18 -0400 (EDT)
From: leeboo@ct.net (Leon Wiltsey)
Subject: REGENS

Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit
Content-Description: cc:Mail note part

>To: GB
>From: leeboo@ct.net (Leon Wiltsey)
>Subject: ? on regens
>Cc:
>Bcc:
>X-Attachments:
>
>Hi gang
>
>was working on my regen and made some
>interesting discoveries. most of the hum
>I was getting from the det stage s due to
>the audio choke I was using for the load.
>Moving the choke around changed the amount
>of hum. So I put a small sig in and measured
>it on the scope. Replaced choke with 8k resistor
>hum went down and sig went up in voltage
>about 30% Changed res to 22k and sig went up
> full 6db more hum did not change. raising value
>of res more did not raise sig out and just made
> me use more screen voltage to get it to osc.
> Sens went up with sig out with load of 22k.
>Why then do most all regen schematics call
>for a audio choke load on det. As far as I can see
>they cause hum without any other advantages
>except when you have a low amount of b+ to work
>with. Am running 125v on plate and it osc at about
>15v on screen.
>
>hope someone with much knowledge of regens
>knows the answer.
>
a

68 yr old semidisabled senior
(stroke got my balance & hand to eye coordination)
ham agn as KF4RCL TECK+ (MUCH HAPPINESS)
BUILD MOST OF MY STATION EQUIP
(tubes that is no SOLID STATE)

Leon B Wiltsey (Lee)
4600 Lake Haven BLVD.
Sebring, Fl. 33872

SEBRING FL. THAT WONDERFUL PLACE WHERE THERE IS NO QRM

FROM ANYTHING LOCAL

Content-Type: text/plain; charset=US-ASCII; name="RFC822 message headers"

Content-Transfer-Encoding: 7bit

Content-Description: cc:Mail note part

Content-Disposition: inline; filename="RFC822 message headers"

Received: from alfw4.turner.com (157.166.2.33) by ccmil.turner.com with SMTP
(IMA Internet Exchange 2.1 Enterprise) id 000E49CF; Sun, 25 May 97 22:14:55
- -0400

Received: from [207.234.31.38] by alfw4.turner.com
for <TONY.SEATON@TURNER.COM>
id WAA05320; Sun May 25 22:12:14 1997

Received: from sco.theporch.com (localhost [127.0.0.1])
by sco.theporch.com (8.8.6.Beta3/SCO5.0.2) with SMTP id BAA05490;
Mon, 26 May 1997 01:54:04 GMT

Received: from blue.ct.net (root@blue.ct.net [205.160.247.2])
by sco.theporch.com (8.8.6.Beta3/SCO5.0.2) with ESMTP id BAA05442
for <BOATANCHORS@SCO.THEPORCH.COM>; Mon, 26 May 1997 01:53:24 GMT

Received: from pm01_25.ct.net (pm01_25.ct.net [205.160.247.57]) by blue.ct.net
(8.7.4/8.6.12) with SMTP id WAA12185 for <BOATANCHORS@SCO.THEPORCH.COM>; Sun, 25
May 1997 22:15:47 -0400 (EDT)

Message-Id: <199705260215.WAA12185@blue.ct.net>

Date: Sun, 25 May 1997 22:15:47 -0400 (EDT)

Subject: ? on regens

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

X-Sender: leeboo@ct.net

X-Mailer: Windows Eudora Version 1.4.3

X-Listprocessor-Version: 8.1 -- ListProcessor(tm) by CREN

To: BOATANCHORS@sco.theporch.com

From: leeboo@ct.net (Leon Wiltsey)

Reply-to: leeboo@ct.net

Sender: owner-boatanchors@sco.theporch.com

68 yr old semidisabled senior
(stroke got my balance & hand to eye coordination)
ham agn as KF4RCL TECK+ (MUCH HAPPINESS)
BUILD MOST OF MY STATION EQUIP
(tubes that is no SOLID STATE)

Leon B Wiltsey (Lee)
4600 Lake Haven BLVD.
Sebring, Fl. 33872

SEBRING FL. THAT WONDERFUL PLACE WHERE THERE IS NO QRM
FROM ANYTHING LOCAL

Date: Mon, 26 May 1997 13:25:06 EDT

From: kb9iua@juno.com (Kevin L Anderson)

Subject: Great List -- Thanks

Just a brief note of thanks to all who contribute
to the Glowbugs list (I read by digest). It reminds
me much of how boatanchors used to be four or
so years ago when it first started and I was a

subscriber. Keep up the good work, and I will
keep on lurking and learning. Just the elmers
I need!

Cheers/73. Kevin Anderson, Glowbugs/BA-list/QRP-L

* * * * *

Kevin Anderson, KB9IUA, Rock Island IL USA

kb9iua@juno.com or kla@helios.augustana.edu

work: anderson@ncrsun1.ncr.usace.army.mil

* * * * *

Date: Mon, 26 May 1997 23:03:25 -0500

From: "Daniel L. Kerl" <dlkerl@ro.com>

Subject: Re: Circuit Board Designers?

I've had good luck using the Protel Easytrax freeware. It'll do
four layers and runs under MSDOS. You can export different
plot formats including Gerber and Postscript. Most PC houses
can handle the Gerber photoplotter format. Download from

<http://www.protel.com/download.htm>

Dan Kerl

dlkerl@ro.com

End of glowbugs V1 #43

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Created by **Steve Modena, AB4EL**

Comments and suggestions to **modena@SunSITE.unc.edu**
